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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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IM52/0905
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EXAMINER	
NILAND, P	
ART UNIT	**PAPER NUMBER**
1714	7

DATE MAILED: 09/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
Examiner	Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 2/25/00.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-61 is/are pending in the application.

Of the above claim(s)____ is/are withdrawn from consideration.

☐ Claim(s)____ is/are allowed.

☒ Claim(s) 1-61 is/are rejected.

☐ Claim(s)____ is/are objected to.

☐ Claim(s)____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been ☒ received.

☐ received in Application No. (Series Code/Serial Number)____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received:____.

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other____

Office Action Summary

1. Claims 5, 13, 28-41, 58, 59, and 61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear what is meant by the phrase "with the exclusion of lactams" in claim 5. It is unclear if lactams do not need to have the prior stated pKas or if lactams cannot be used as the blocking agent.

B. It is unclear what is intended by a "grinding mixer" of claim 13. All mixers impart shear, i.e. energy, and are therefore capable of imparting some degree of molecular scission, i.e. grinding. It is therefore unclear how "grinding mixer" is intended to distinguish over any type of mixer. For these reasons, the mixer of the prior art, whatever its type, is considered to fall within the scope of "grinding mixer".

C. It is unclear what X and X' are to be as the instant claim 28 only defines them in terms of what they are not.

D. It is unclear what is meant by "substituted aryls" of claim 28 as the claim does not specify the substituents. It is therefore unclear what is encompassed as substituents.

E. It is unclear what method steps are required involving blocking the isocyanate since the specified method steps never involve isocyanate nor blocking agent and the specified method steps only recite using an effective amount of the specified surfactant. It is unclear what the amount must be effective in doing, i.e. creating micelles, stably dispersing some compound or

compounds, or some other function, because the claim does not explicitely state what the effect is to be. See In re Frederiksen, 213 F 2d 547, 102 USPQ 35 (CCPA 1954).

F. It is unclear what the bases of the percentages of claims 58-59 are, i.e. weight, volume, molar, etc.

G. It is unclear by what other means the coating of the instant claim 61 can be obtained as other means are clearly encompassed by the instant claim language "which can be obtained by". It would require undue experimentation to determine all of the other processes which give coatings which are to be encompassed by the instant claim 61. This is impermissible according to the following cited caselaw. "Which can be obtained by" is deemed as having the same meaning as "obtainable" by definition of the suffix -able.

The following are supporting descisions for rejecting "obtainable" and similar terms as indefinite.

1. Atlantic Thermoplastics Co. Inc. v Faytex Corp. 23 USPQ 2nd 1481 (1486).

In footnote 6, on page 1486, referring to Cochrane v Badische Aniline and Soda Fabrik (BASF), 11 US 293, the court stated "...because artificial alizarine can take different forms, BASF's claim would be indefinite unless limited to the described process".

The claim referred to is

"Artificial alizarine produced form anthracene or its derivatives by either of the methods described herein or any other method producing a like result."

2. Ex parte Tanksley 26 USPQ 2nd 1389

"A claim is indefinite if undue experimetnation is involved to determine boundaries of protection".

This rationale is applicable to polymers obtainable by a stated process because any variation in any parameter within the scope of the claimed process would change the polymer produced. One who made or used a polymer made by a process other than the process recited in the claim would have to produce polymers using all possible parameters within the scope of the claims (temperature, pressure, diluents, component ratios, feed ratios, etc.) and then extensively analyze each product, to determine if his polymer was obtainable by a process within the claimed process.

3. Purdue Research v Watson 1959 CD 124 (Dist Ct) affirmed by CCPA 120 USPQ 521.

"Preparable by" was held to not particularly point out and distinctly claim the invention.

"When one has produced a composition of matter where it is not possible to define its characteristics which make

it inventive except by reference to the process by which it is produced, one is permitted to so claim the composition produced by the process referred to in the claims. When the compostion is thus claimed in terms of the process of its preparation, the product cannot be defined in such a manner as to assert a monopoly on the product by whatever means produced.

2. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed substituted aryl groups, does not reasonably provide enablement for all substituted aryl groups. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

A. It would require undue experimentation to determine how to make all "substituted aryl groups" encompassed by the instant claims and further undue experimentation to determine which of these compounds will function properly in the instantly claimed invention.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-15, 21-41, and 46-61 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 4303774 Nachtkamp et al..

Nachtkamp discloses mixing compounds having an HLB (hydrophile lipophile balance), which therefore fall within the scope of surfactant, isocyanate, and compounds that react with the NCO groups and therefore block them. This process falls within the scope of the instant claims. See column 9, lines 18-58 and the examples. The mixing of the various components of the patentee together constitutes the limitations of the instant claims 14-15. This portion of the patentee does not specify temperature. It is therefore considered that the temperature is ambient temperature or the temperatures of the other method variants of the patentee, i.e. column 9, lines 9-11. In either event, claim 21 is encompassed. The emulsifiers of the patentee, column 9, lines 56-58 would necessarily be added in amounts less than 20% wt of the polyisocyanate based on micelle formation considerations. The disclosed resulting compositions, methods of coatings, and coatings fall within the scope of the instant claims 46-61.

6. Claims 1-41 and 46-61 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5300556 Tirpak et al..

Tirpak et al. discloses the instantly claimed methods, compositions, method of coating, and coating at the abstract; column 2, line 15 to column 10, line 44, particularly column 3, lines 1-68,

column 4, lines 1-38 and 60-68; column 5, lines 1-68, column 6, lines 3-65, and column 7, lines 1-27 and the examples.

7. Claims 1-41 and 46-61 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/12924 Rimmer et al..

Rimmer discloses a method of making a blocked polyisocyanate, compositions, coating methods and coatings falling within the scope of the instant claims. See examples 1-4, page 4, line 1 to page 15, line 1, and page 5, lines 2-5.

8. Claims 1-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of US Pat. No. 4303774 Nachtkamp et al., US Pat. No. 5300556 Tirpak et al., and WO 97/12924 Rimmer et al. each in view of EP 367667 Yasuda et al. and .

Nachtkamp, Tirpak each disclose the compositions, methods, and coatings as discussed above. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed surfactants as the surfactants used by these patentees because Yasuda shows such surfactants to impart desired properties to aqueously dispersed polyurethanes and these surfactants would have been expected to impart these properties to the above discussed emulsions where the surfactant of Yasuda is used as the surfactants of the primary references. With regard to the particle sizes of the instant claims, those of water soluble particles such as polyether particles are expected to be very small, i.e. within those of the instant claim 56, and those of dispersed polyurethanes are typically less than 10 micrometers with smaller particles being more stable. Furthermore, self dispersible polyurethanes are typically less than 1

micrometer in size as would be appreciated by the ordinary skilled artisan. Thus, the examiner believes that the state of aqueous self emulsifiable polyurethanes is such that the ordinary skilled artisan would necessarily use the instantly claimed particle sizes in the emulsions of the primary references, it is at least obvious to use these particle sizes in the primary references of this rejection because they are known to give the most stable emulsions at ambient conditions.

9. Claims 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. Nos. 5037864 Anand et al. and 4879322 Markusch et al..

The figures on the covers of Anand et al. and Markusch et al. disclose plants having the limitations and means of the instant claims 42-45.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Niland whose telephone number is (703) 308-3510. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

pn
Aug. 31, 2001

Patrick Niland
Primary Examiner
Art Unit 1714